

# **FEE TRANSMITTAL** for FY 2005

(Large Entity)



☐ Applicant claims small entity status

Total Amount of Payment (\$130

Complete if Known

Patent Number 6,451,534

Issue Date 17 September 2002

First Named Inventor Mark T. Keating

Examiner Name

Group Art Unit

Attorney Docket Number 2323-151

Confirmation Number

RECEIVED

OCT 31 2005

OFFICE OF PETITIONS

## **METHOD OF PAYMENT (check one)**

- ☒ The Commissioner is hereby authorized to charge the fees indicated below or credit overpayment to Deposit Account Number 02-2135 in the name of Rothwell, Figg, Ernst & Manbeck
- ☒ Charge any additional fee required under 37 CFR 1.16 and 1.17 to Deposit Account No. 02-2135.
- ☒ Payment by check enclosed

## **FEE CALCULATION**

### **1. FILING, SEARCH AND EXAMINATION FEES**

Code	Fee	Fee Description	Fee Paid
1001	300	Utility Filing Fee	[ ]
1111	500	Utility Search Fee	[ ]
1311	200	Utility Examination Fee	[ ]
1002	200	Design Filing Fee	[ ]
1112	100	Design Search Fee	[ ]
1312	130	Design Examination Fee	[ ]
1003	200	Plant Filing Fee	[ ]
1113	300	Plant Search Fee	[ ]
1313	160	Plant Examination Fee	[ ]
1004	300	Reissue Filing Fee	[ ]
1114	500	Reissue Search Filing Fee	[ ]
1314	600	Reissue Examination Fee	[ ]
1005	200	Provisional Filing Fee	[ ]

**SUBTOTAL \$**

### **2. CLAIMS**

Total Claims	Independent Claims	Multiple Dependent Claims	Extra Claims	Fee	Fee Paid
[ ]	[ ]	[ ]	[ ]	\$50	[ ]
[ ]	[ ]	[ ]	[ ]	200	[ ]
[ ]	[ ]	[ ]	[ ]	360	[ ]

\*or number previously paid, if greater

**SUBTOTAL \$**

### **3. APPLICATION SIZE FEE**

Total Sheets [ ] - 100 = [ ] /50 = [ ]\*\* x \$250 =  
\*\* Number of each additional 50 or fraction thereof

**SUBTOTAL \$**

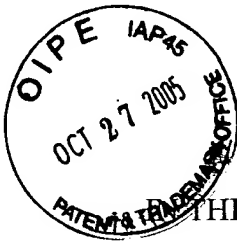
## **FEE CALCULATION (continued)**

### **4. ADDITIONAL FEES**

Code	Fee Paid	Fee Description	Fee Paid
1051	130	Surcharge - late filing fee or oath	[ ]
1052	50	Surcharge - late provisional filing fee or cover sheet	[ ]
1053	130	Non-English specification	[ ]
1812	2,520	For filing a request for reexamination	[ ]
1804	920	Requesting publication of SIR prior to Examiner action	[ ]
1805	1,840	Requesting publication of SIR after Examiner action (reduced by basic filing fee paid)	[ ]
1251	120	Extension for reply within first month	[ ]
1252	450	Extension for reply within second month	[ ]
1253	1,020	Extension for reply within third month	[ ]
1254	1,590	Extension for reply within fourth month	[ ]
1255	2,160	Extension for reply within fifth month	[ ]
1401	500	Notice of Appeal	[ ]
1402	500	Filing a brief in support of an appeal	[ ]
1403	1,000	Request for Oral Hearing	[ ]
1451	1,510	Petition to institute a public use proceeding	[ ]
1452	500	Petition to revive -unavoidable	[ ]
1453	1,500	Petition to revive - unintentional	[ ]
1807	50	Processing fee under 37 CFR 1.17(q)	[ ]
1806	180	Submission of Information Disclosure Statement	[ ]
1809	790	Filing a submission after final rejection (37 CFR 1.129(a))	[ ]
1810	790	For each additional invention to be examined (37 CFR 1.129(b))	[ ]
1801	790	Request for Continued Examination (RCE)	[ ]
1802	900	Request for expedited examination of a design application	[ ]
1504	300	Publication fee for early, voluntary, or normal publication	[ ]
1505	300	Publication fee for republication	[ ]
1455	200	Filing application for patent term adjustment	[ ]
1456	400	Request for reinstatement of term reduced	[ ]
1814	130	Statutory Disclaimer	[ ]
Other fee (specify) Petition Fee			[130 ]

**SUBTOTAL \$130**

SUBMITTED BY		Complete (if applicable)			
NAME AND REG. NUMBER		Jeffrey L. Ihnen, Reg. No. 28,957			
SIGNATURE		DATE	27 October 2005	DEPOSIT ACCOUNT	XXX
				USER ID 02-2135	



THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED  
NOV 04 2005  
TECH CENTER 1800/2900

Patent No. : 6,451,534  
Patentee : Mark T. Keating et al.  
Issued : 17 September 2002

Confirmation No. 6467

Docket No. : 2323-151  
Customer No. : 6449

Mail Stop Petition  
Director of the United States Patent  
and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

RECEIVED  
OCT 31 2005  
OFFICE OF PETITIONS

**PETITION FOR CORRECTION OF  
INVENTORSHIP PURSUANT TO 37 C.F.R. 1.324**

Sir:

Pursuant to the provisions of 37 C.F.R. §1.324(a), Applicants hereby petition for correction of inventorship in the subject Patent. Specifically, Applicants request the Commissioner to add QING WANG as co-inventor with the already-named inventors of record, Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Gregory M. Landes, Timothy D. Connors, Timothy C. Burn and Igor Splawski.

In support of this petition, and in accordance with the requirements of 37 C.F.R. §1.324(b), Applicants concurrently submit the following:

- a *Statement under 37 C.F.R. §1.324(b)(1)*, signed by the inventor to be added;
- a *Statement under 37 C.F.R. §1.324(b)(2)*, signed by the current inventors;
- a *Consent of Assignee to Correct Inventorship*, by an authorized signatory of University of Utah Research Foundation, the assignee of the entire interest of Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Igor Splawski and Qing Wang in the subject Patent;
- a *Statement Pursuant to 37 C.F.R. §3.73(b)*, by an authorized signatory of assignee University of Utah Research Foundation; and

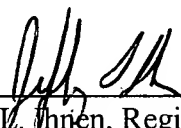
U.S. Patent No. 6,451,534  
Petition for Correction of Inventorship  
Pursuant to 37 C.F.R. 1.324

- a *Consent of Assignee to Correct Inventorship*, signed by an official of Genzyme Corporation, the assignee of the entire interest of co-inventors Gregory M. Landes, Timothy D. Connors and Timothy C. Burn in the subject Patent;
- a *Statement under 37 C.F.R. §3.73(b)* by assignee Genzyme Corporation;
- a check for the requisite \$130.00 fee.

If any additional payment is required, or any discrepancies in fees are noted, please charge or credit the cost thereof to Deposit Account No. 02-2135. An extra copy of this Request is attached for that purpose.

Respectfully submitted,

By

  
\_\_\_\_\_  
Jeffrey W. Jhnen, Registration No. 28,957  
Attorney for Applicants  
ROTHWELL, FIGG, ERNST & MANBECK, P.C.  
Suite 800, 1425 K Street, N.W.  
Washington, D.C. 20005  
Telephone: (202)783-6040

2323\..151.RCI.wpd



# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Complete if Known

Patent Number 6,451,534

Issue Date 17 September 2002

First Named Inventor Mark T. Keating

Examiner Name

Group Art Unit

Total Number of Pages in This Submission

Attorney Docket Number 2323-151

## ENCLOSURES (check all that apply)

☒ Fee Transmittal Form

☒ Fee Attached

☐ Amendment/Reply

☐ After Final

☐ Affidavits/declaration(s)

☐ Extension of Time Request

☐ Express Abandonment Request

☐ Information Disclosure Statement

☐ Certified Copy of Priority Document(s)

☐ Response to Missing Parts/Incomplete Application

☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

☒ Assignment Papers

☐ Drawing(s)

☐ Licensing-related Papers

☒ Petition

☐ Petition to Convert to a Provisional Application

☐ Power of Attorney, Revocation Change of Correspondence Address

☐ Terminal Disclaimer

☐ Request for Refund

☐ CD, Number of CD(s)

☐ After Allowance Communication to Group

☐ Appeal Communication to Board of Appeals and Interferences

☐ Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)

☐ Proprietary Information

☐ Status Letter

☒ Other Enclosure(s) (please identify below):

- Petition for Correction of Inventorship Pursuant to 37 C.F.R. §1.324
- Statement Under 37 C.F.R. §1.324(b)(1)
- Statement Under 37 C.F.R. §1.324(b)(2)
- Consent of Assignee to Correct Inventorship - University of Utah
- Statement Under 37 C.F.R. §3.73(b) - University of Utah
- Consent of Assignee to Correct Inventorship - Genzyme Corporation
- Statement Under 37 C.F.R. §3.73(b) - Genzyme Corporation

REMARKS:

**RECEIVED**

OCT 31 2005

OFFICE OF PETITIONS

SUBMITTED BY		Complete (if applicable)			
NAME AND REG. NUMBER	Jeffrey L. Ihnen, Reg. No. 28,957				
SIGNATURE		DATE	27 October 2005	DEPOSIT ACCOUNT USER ID 02-2135	XXX



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534  
Patentee : Mark T. Keating et al.  
Issued : 17 September 2002

Confirmation No. 6467

Docket No. : 2323-151  
Customer No. : 6449

Director of the United States Patent  
and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**STATEMENT UNDER 37 C.F.R. § 1.324 (b)(1)**

Sir:

QING WANG hereby states that he is a joint inventor of the invention of the above-identified Patent filed in the name of Mark T. Keating et al.

The application for the above-identified patent was inadvertently filed omitting the name of QING WANG as co-inventor, through error and without any deceptive intention on my part.

Date:

*[Signature]*  
11/4/2005

*[Signature]*  
Qing WANG



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THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534  
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STATEMENT PURSUANT TO 37 C.F.R. §3.73(b)

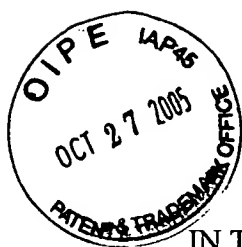
Sir:

UNIVERSITY OF UTAH RESEARCH FOUNDATION, through its undersigned signatory, who is authorized to sign on its behalf, represents that it is the assignee of the entire interest in the above-identified Patent with respect to the rights of coinventors Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Igor Splawski and Qing Wang, and that an assignment from the coinventors Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran and Igor Splawski to the University of Utah is recorded at Reel No. 009964, Frames 0732-0738 and an assignment to University of Utah Research Foundation from the University of Utah is recorded at Reel No. 009966, Frames 0867-0868. An assignment from the coinventor Qing Wang to the Howard Hughes Medical Institute, a Confirmation of Assignment from the Howard Hughes Medical Institute to the University of Utah and an assignment to the University of Utah Research Foundation from the University of Utah are being submitted for Patent Office recordation. A copy of these latter three assignments is attached.

UNIVERSITY OF UTAH RESEARCH FOUNDATION

Date: 10/6/04

By: Brent Brown  
Brent Brown  
Acting Director, Technology Transfer Office



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534  
Patentee : Mark T. Keating et al.  
Issued : 17 September 2002

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Docket No. : 2323-151  
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NOV 04 2005

**TECH CENTER 1600/2900**

Director of the United States Patent  
and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**CONSENT OF ASSIGNEE TO CORRECT INVENTORSHIP**

Sir:

UNIVERSITY OF UTAH RESEARCH FOUNDATION, assignee of the interest of the rights of Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Igor Splawski and Qing Wang in the subject matter of the Patent identified above, through its undersigned signatory, who is authorized to act on its behalf, hereby consents to correction of the inventorship of the subject Patent to add Qing WANG as co-inventor, along with the originally named inventors, Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Gregory M. Landes, Timothy D. Connors, Timothy C. Burn and Igor Splawski.

UNIVERSITY OF UTAH RESEARCH FOUNDATION

Date: 10/06/04

By: Brent Brown  
Brent Brown  
Director, Technology Transfer Office

**ASSIGNMENT**

**WHEREAS**, UNIVERSITY OF UTAH, a non-profit organization duly organized under the laws of the State of Utah, with a place of business at 615 Arapeen Drive, Suite 110, Salt Lake City, Utah 84108 (hereinafter referred to as "Assignor") is the owner, by virtue of an assignment executed by co-inventor Qing WANG, of an invention in KVLQT1 - A LONG QT SYNDROME GENE, with regard to the following:

U.S. Patent 6,582,913, issued 24 June 2003;  
U.S. Patent 6,451,534, issued 17 September 2002;  
U.S. Patent 6,420,124, issued 16 July 2002;  
U.S. Patent 6,277,978, issued 21 August 2001; and  
U.S. Application Serial No. 10/368,643, filed 20 February 2003,

**WHEREAS**, UNIVERSITY OF UTAH RESEARCH FOUNDATION, incorporated in the state of Utah, with a place of business at 615 Arapeen Drive, Suite 110, Salt Lake City, Utah 84108, is desirous of obtaining the entire right, title and interest in, to and under the said inventions and the said applications;

**NOW, THEREFORE**, for good and valuable consideration, the receipt of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto the said UNIVERSITY OF UTAH RESEARCH FOUNDATION, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said patent and applications and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said invention in any country or countries foreign to the United States, and all Letters Patent which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof and all rights of priority in any such country or countries based upon the filing of the said patent and applications for Letters Patent of the United States which are created by any law, treaty or international convention; and Assignor hereby authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said UNIVERSITY OF UTAH RESEARCH FOUNDATION, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

**AND ASSIGNOR HEREBY** covenants that it has full right to convey the entire interest herein assigned, and that it has not executed, and will not execute, any agreement in conflict herewith.

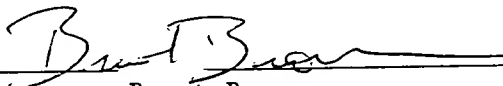
**AND ASSIGNOR HEREBY** further covenants and agrees that it will communicate to the said UNIVERSITY OF UTAH RESEARCH FOUNDATION, its successors, legal representatives and assigns, any facts known to it respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said UNIVERSITY OF UTAH RESEARCH FOUNDATION, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

**IN TESTIMONY WHEREOF**, Assignor sets its hand and seal the day and year set opposite its signature.

Date

10/06/04

2004



L.S.

Brent Brown

Director, Technology Transfer Office



ASSIGNMENT

Assignment made July 7, 2004, by Qing Wang, PhD ("Inventor") to the Howard Hughes Medical Institute, a Delaware corporation (the "Institute").

Recitals

WHEREAS, Inventor was an employee of the Institute and, as a condition of his employment, has signed the Agreement appended to the Institute's Policy on Intellectual Property (the "Intellectual Property Agreement");

WHEREAS, pursuant to the Intellectual Property Agreement, Inventor has agreed (a) to assign to the Institute all rights he may acquire in any invention, discovery, improvement, or other intellectual property, whether or not patentable or copyrighable, developed directly or indirectly as a result of a program of research financed by Institute funds or funds under the control of the Institute (each a "Subject Property") and (b) to execute any agreements that may be desired by the Institute in connection with such assignment;

WHEREAS, Inventor has, alone or with others invented "KVLQT1 - A Long QT Syndrome Gene Which Encodes KVLQT1 Which Coassembles With minK to Form Cardiac IKS Potassium Channels" which may be the subject of a patent application (the "Invention"), and the Invention is a Subject Property; and

WHEREAS, Inventor seeks to make a formal assignment of his interest in the Invention to the Institute, and the Institute desires the execution of a formal assignment of all of Inventor's right, title, and interest in the Invention.

NOW, THEREFORE, in consideration of the promises contained in and the acts performed and to be performed pursuant to the Intellectual Property Agreement and of other good and valuable consideration, the receipt of which is hereby acknowledged by Inventor, Inventor agrees as follows:

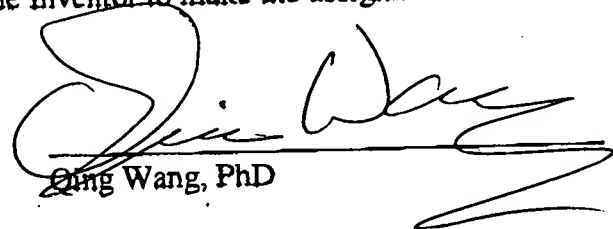
1. Assignment. Inventor hereby assigns to the Institute his entire right, title, and interest in the Invention; any United State patent applications and all corresponding foreign patent applications which are directed to the Invention (including, without limitation, the patent application and patents listed on Exhibit A), and any and all patents issued therefrom; all United States or foreign division and continuation applications based on any of the foregoing, and any and all patents issued therefrom; and all claims which are directed to the Invention and which may be contained in continuation-in-part applications or in patents which issue therefrom.

2. Cooperation. Inventor agrees to execute upon request such further assignments, documents, and other instruments as may be necessary or desirable to assign Inventor's entire right, title and interest in the Invention to the Institute and to assist the Institute (or others at the direction of the Institute) in applying for, obtaining, and enforcing patents, copyrights, or other rights in the United States and in any foreign country with respect to the Invention.

3. Parties. The terms and provisions of the Assignment shall inure to the benefit of the Institute and its successors and assigns and shall be binding on the Inventor and his heirs, personal representatives and assigns.

4. Warranty. Inventor warrants and represents that he has not entered into any assignment, contract, or understanding in conflict herewith, and that there is no other person or entity whose consent is required in order for the Inventor to make the assignment contained herein.

Inventor:

  
Qing Wang, PhD

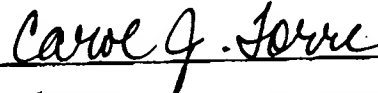
State of Ohio

County of Cuyahoga

Then personally appeared before me the above-named Qing Wang, PhD and acknowledged that he executed the foregoing instrument in his authorized capacity this 7th day of July, 2004

(SEAL)

Notary Public:



CAROL J. TORRE

(print name)

My Commission Expires: \_\_\_\_\_

U-2241  
HHMI 00987

CAROL J. TORRE  
Notary Public - State of Ohio  
My Commission Expires May 13, 2006

## Exhibit A

Invention Title	Patent Number	Filing Date/Issue Date
KVLQT1-A Long QT Syndrome Gene	6,582,913	June 24, 2003
KVLQT1-A Long QT Syndrome Gene	6,451,534	September 17, 2002
KVLQT1-A Long QT Syndrome Gene	6,420,124	July 16, 2002
KVLQT1-A Long QT Syndrome Gene	6,277,978	August 21, 2001
KVLQT1-A Long QT Syndrome Gene	10/368,643	February 20, 2003

## CONFIRMATION OF ASSIGNMENT

Confirmation of Assignment by Howard Hughes Medical Institute (the "Institute") to University of Utah ("University"), through Mark T. Keating, MD, an investigator employed by the Institute.

WHEREAS, the Institute and the University collaborate in the active conduct of medical research pursuant to a Collaboration Agreement between them dated as of October 1, 1986 (the "Collaboration Agreement");

WHEREAS, pursuant to the Collaboration Agreement, the Institute has agreed to assign to the University the Institute's rights with respect to inventions, discoveries, improvements, and other intellectual property, whether patentable or copyrightable (each a "subject property"), conceived or reduced to practice in the course of the research program conducted under the Collaboration Agreement by employees of the Institute;

WHEREAS, research conducted pursuant to the Collaboration Agreement by Dr. Keating while employed at the University by the Institute resulted in the invention of a certain subject property with respect to which patent applications were filed (the "Invention") (See Attachment 1); and


WHEREAS, in connection with the pursuit of the patent application, it is desirable to confirm that the Institute's rights in the Invention by reason of the research program conducted at the University have been validly assigned to the University by and through the assignments made by Dr. Keating listed in Attachment 1.

NOW, THEREFORE, the Institute hereby confirms that the Institute's rights in the Invention by reason of the research program conducted at the University have been validly assigned to the University by and through the assignments made by Dr. Keating listed in Attachment 1.

Executed 4/15/01

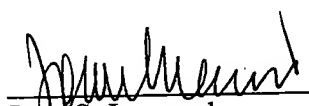
HOWARD HUGHES MEDICAL INSTITUTE

By:

  
Gerald M. Rubin, PhD  
Vice President for Biomedical Research

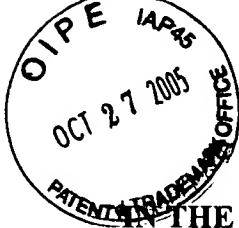
ATTESTED:

By:

  
Joan S. Leonard  
Vice President and General Counsel

## Assignments Associated with U-2477/HHMI 1892

HHMI Investigator	Patent Application Title	Filing Date	Application Number	Assignment Date
Mark T. Keating	Mutations in the KCNE1 Gene Encoding Human minK Which Cause Arrhythmia Susceptibility Thereby Establishing KCNE1 as an LQT Gene	8/29/97	08/921,068	3/16/1998
Mark T. Keating	Mutations in the KCNE1 Gene Encoding Human minK Which Cause Arrhythmia Susceptibility Thereby Establishing KCNE1 as an LQT Gene	8/17/98	09/135,020	10/7/98
Mark T. Keating	KVLQT1 – A Long QT Syndrome Gene	8/17/98	09/135,010	4/27/99



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534  
Patentee : Mark T. Keating et al.  
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Director of the United States Patent  
and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**STATEMENT UNDER 37 C.F.R. § 1.324 (b)(2)**

Sir:

MARK T. KEATING, MICHAEL C. SANGUINETTI, MARK E. CURRAN, GREGORY  
M. LANDES, TIMOTHY D. CONNORS, TIMOTHY C. BURN AND IGOR SPLASWKI hereby  
state that they agree with the requested change in inventorship.

Date: \_\_\_\_\_

\_\_\_\_\_  
Mark T. KEATING

Date: \_\_\_\_\_

\_\_\_\_\_  
Michael C. SANGUINETTI

Date: \_\_\_\_\_

\_\_\_\_\_  
Mark C. CURRAN

Date: 3/26/04

  
\_\_\_\_\_  
Gregory M. LANDES

Date: \_\_\_\_\_

\_\_\_\_\_  
Timothy D. CONNORS

Date: \_\_\_\_\_

\_\_\_\_\_  
Timothy C. BURN

Date: \_\_\_\_\_

\_\_\_\_\_  
Igor SPLAWSKI



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534  
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Director of the United States Patent  
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P.O. Box 1450  
Alexandria, Virginia 22313-1450

**STATEMENT UNDER 37 C.F.R. § 1.324 (b)(2)**

Sir:

MARK T. KEATING, MICHAEL C. SANGUINETTI, MARK E. CURRAN, GREGORY  
M. LANDES, TIMOTHY D. CONNORS, TIMOTHY C. BURN AND IGOR SPLASWKI hereby  
state that they agree with the requested change in inventorship.

Date: \_\_\_\_\_

\_\_\_\_\_  
Mark T. KEATING

Date: \_\_\_\_\_

\_\_\_\_\_  
Michael C. SANGUINETTI

Date: \_\_\_\_\_

\_\_\_\_\_  
Mark C. CURRAN

Date: \_\_\_\_\_

\_\_\_\_\_  
Gregory M. LANDES

Date: 3/24/04

Timothy D. Connors  
Timothy D. CONNORS

Date: \_\_\_\_\_

\_\_\_\_\_  
Timothy C. BURN

Date: \_\_\_\_\_

\_\_\_\_\_  
Igor SPLAWSKI



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534  
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Date: \_\_\_\_\_

\_\_\_\_\_  
Mark T. KEATING

Date: \_\_\_\_\_

\_\_\_\_\_  
Michael C. SANGUINETTI

Date: \_\_\_\_\_

\_\_\_\_\_  
Mark C. CURRAN

Date: \_\_\_\_\_

\_\_\_\_\_  
Gregory M. LANDES

Date: \_\_\_\_\_

\_\_\_\_\_  
Timothy D. CONNORS

Date: 03/29/04

\_\_\_\_\_  
Timothy C. BURN

Date: \_\_\_\_\_

\_\_\_\_\_  
Igor SPLAWSKI





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 6,451,534  
Patentee : Mark T. Keating et al.  
Issued : 17 September 2002

Confirmation No. 6467

Docket No. : 2323-151  
Customer No. : 6449

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NOV 04 2005

**TECH CENTER 1600/2900**

Director of the United States Patent  
and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**STATEMENT UNDER 37 C.F.R. § 1.324 (b)(2)**

Sir:

MARK T. KEATING, MICHAEL C. SANGUINETTI, MARK E. CURRAN,  
GREGORY M. LANDES, TIMOTHY D. CONNORS, TIMOTHY C. BURN AND IGOR  
SPLASWKI hereby state that they agree with the requested change in inventorship.

Date: \_\_\_\_\_

\_\_\_\_\_  
Mark T. KEATING

Date: \_\_\_\_\_

\_\_\_\_\_  
Michael C. SANGUINETTI

Date: \_\_\_\_\_

\_\_\_\_\_  
Mark E. CURRAN

Date: \_\_\_\_\_

\_\_\_\_\_  
Gregory M. LANDES

Date: \_\_\_\_\_

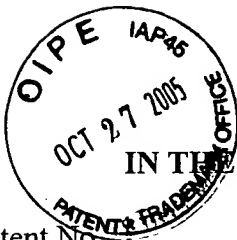
\_\_\_\_\_  
Timothy D. CONNORS

Date: \_\_\_\_\_

\_\_\_\_\_  
Timothy C. BURN

Date: \_\_\_\_\_

\_\_\_\_\_  
Igor SPLAWSKI



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Date:

10/3/2005

Mark T. KEATING

Date:

Michael C. SANGUINETTI

Date:

Mark C. CURRAN

Date:

Gregory M. LANDES

Date:

Timothy D. CONNORS

Date:

Timothy C. BURN

Date:

10/3/2005

Igor SPLASWKI



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Date: \_\_\_\_\_

\_\_\_\_\_  
Mark T. KEATING

Date: 2-June-2005

M. Sanguinetti  
\_\_\_\_\_  
Michael C. SANGUINETTI

Date: \_\_\_\_\_

\_\_\_\_\_  
Mark C. CURRAN

Date: \_\_\_\_\_

\_\_\_\_\_  
Gregory M. LANDES

Date: \_\_\_\_\_

\_\_\_\_\_  
Timothy D. CONNORS

Date: \_\_\_\_\_

\_\_\_\_\_  
Timothy C. BURN

Date: \_\_\_\_\_

\_\_\_\_\_  
Igor SPLAWSKI



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Alexandria, Virginia 22313-1450

**CONSENT OF ASSIGNEE TO CORRECT INVENTORSHIP**

Sir:

GENZYME CORPORATION, assignee of the interest of the rights of Gregory M. Landes, Timothy D. Connors and Timothy C. Burn in the subject matter of the Patent identified above, through its undersigned signatory, who is authorized to act on its behalf, hereby consents to correction of the inventorship of the subject Patent to add Qing WANG as co-inventor, along with the originally named inventors, Mark T. Keating, Michael C. Sanguinetti, Mark E. Curran, Gregory M. Landes, Timothy D. Connors, Timothy C. Burn and Igor Splaswki.

GENZYME CORPORATION

Date:

March 30, 2004

By:



Name: Thomas J. DesRosier

Title: Senior VP, General Counsel  
Chief Patent Counsel



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Patentee : Mark T. Keating et al.  
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**TECH CENTER 1600/2900**

Director of the United States Patent  
and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**STATEMENT PURSUANT TO 37 C.F.R. §3.73(b)**

Sir:

GENZYME CORPORATION, through its undersigned signatory, who is authorized to sign on its behalf, represents that it is the assignee of the entire interest in the above-identified Patent with respect to the rights of coinventors Gregory M. Landes, Timothy D. Connors and Timothy C. Burn, and that an assignment from these coinventors to Genzyme Corporation is recorded at Reel No. 009966, Frames 0874-877.

GENZYME CORPORATION

Date:

March 30, 2004

By:

Name: Thomas J. DesRosier  
Title: Senior VP, General Counsel  
Chief Patent Counsel